

CLAIM AMENDMENTS

1. (previously presented) A method of magnetron sputtering, the method comprising:
forming a first closed plasma loop;
forming an open plasma loop by forming a separatrix such that a portion of the open plasma loop enclosed by the separatrix is cut-off by a target of a magnetron apparatus, the separatrix comprising a surface having a null region through which ions may pass through; and
sputtering the target with ions from the open plasma loop and the closed plasma loop.
2. (original) The method of claim 1 further comprising:
forming a second closed plasma loop within the first closed plasma loop.
3. (original) The method of claim 1 wherein the open plasma loop flows in the same direction as the first closed plasma loop.
4. (original) The method of claim 1 wherein the target comprises a planar target.
5. (original) The method of claim 1 wherein the target comprises a hollow target
6. (canceled)
7. (canceled)
8. (original) The method of claim 1 further comprising:
generating a rotating magnetic field to rotate the open plasma loop.
- 9-32. (canceled)
33. (previously presented) A method of magnetron sputtering, the method comprising:
forming a first closed plasma loop;
forming an open plasma loop;
sputtering a target with ions from the open plasma loop and the closed plasma loop;
wherein the open plasma loop is formed by physically blocking a return path of a separatrix comprising a surface having a null field region through which ions may pass through.
34. (previously presented) The method of claim 33 further comprising:
forming a second closed plasma loop within the first closed plasma loop.
35. (previously presented) The method of claim 33 wherein the open plasma loop flows in the same direction as the first closed plasma loop.

36. (previously presented) The method of claim 33 wherein the target comprises a planar target.
37. (previously presented) The method of claim 33 wherein the target comprises a hollow target.
38. (previously presented) The method of claim 33 further comprising:
generating a rotating magnetic field to rotate the open plasma loop.